

Northamptonshire County Council.
EDUCATION COMMITTEE.

TWELFTH
ANNUAL REPORT

ON THE
Medical Inspection of
Children in Schools,
FOR THE YEAR 1919.

BY
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County Medical Officer of Health.

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CHARLES E. PAGET,
County Medical Officer of Health,

Prefatory Remarks. I have the honour herewith to present the Twelfth Annual Report on the Medical Inspection of Children, except where stated otherwise, in the Public Elementary Schools of the Administrative County of Northampton, exclusive of those situated in the Urban District of Kettering, where elementary education is administered separately. The period covered by the report is the year 1919.

I am indebted to Mr. J. L. Holland, the Secretary of the Education Committee, for the following administrative information :—

(a) STAFF. Dr. J. H. Mason, the School Medical Officer, was demobilised early in the year, and took up his duties again under the Committee in March, 1919. Mrs. M. J. Newton, who had been acting as School Medical Officer during Dr. Mason's absence, was appointed Assistant School Medical Officer.

(b) TREATMENT OF BLIND, AND DEAF AND DUMB CHILDREN. Particulars are submitted herewith in tabular form respecting the Institutional treatment of Blind, and Deaf and Dumb children. During the year 3 new cases have been reported (1 Blind and 2 Deaf and Dumb), so that the number who were under treatment during part or the whole of the year was 30. One Blind child and 2 Deaf and Dumb children were withdrawn from Institutions during the year on attaining the age of 16 years. There were thus 27 children left under treatment at the end of the year.

(c) PHYSICAL TRAINING CLASSES IN EVENING SCHOOLS. The number of classes this Session shows a considerable increase over that for the Session 1918–19. All the Classes held during that Session, with the exception of one at Long Buckby, have been re-opened, and in addition new Classes have been formed at seven other Schools. There are now 32 Classes being conducted as follows :—For men and boys at Aynhoe, Brackley, Cold Higham; for women and girls at Desborough, Finedon, Kettering (Rockingham Road), Wilby; and for both sexes at Irthlingborough, Rothwell, Rushden, and Wellingborough. The average attendance per class works out at a little under 15, and, in view of the fact that some of the classes are conducted in Rural Schools, this may be regarded as satisfactory.

(d) PROVISION OF SPECTACLES. During January and February, 1919, Dr. Harries Jones conducted 30 defective vision examinations, whilst, since his return in March, Dr. Mason has conducted 548 examinations, making a total of 578 for the year.

Particulars as to Children who were at Institutions for the Blind, and Deaf and Dumb, during any part of 1919.

No.	Initials of Child.	Residence of Parent or Guardian.	Name of Institution.	Date of Entering Institution.	Reaches 16 years of age.	Annual Charge by Institution.	Weekly Contribution of Parent.	Report upon Case.
Blind Children.								
1	Florence E. E.	Hackleton.....	Royal Institution for Blind, Birmingham	20 Jan., '15	28 June, '21	£ 40	3/-	Has much improved in character and progress.
2	Emily G.	Syresham	Do.	8 Oct., '19	3 Oct., '21	40	1/6	Left Easter 1919.
3	Florence C.	Rushden	School for the Blind, Liverpool	29 Mar., '12		60	1/6	
4	N. F. B.	Bulwick	Do.	25 Oct., '12		60	1/-	Left Easter 1919.
5	R. F.	Cogenhoe	Do.	25 Oct., '12	10 Mar., '21	60	1/-	Very smart boy: has more than average ability for music.
6	W. C.	Little Weldon	Do.	7 Jan., '13	4 April, '21	60	1/-	Making good progress: technical work very good.
7	W. F. H. L. ..	Stanion	Do.	24 Sept., '15	17 Feb., '21	60	6d.	Progress good: shows plenty of intelligence. Manual very good.
8	W. C. D.	Duddington	Do.	11 Jan., '16	4 Oct., '25	60	1/-	Very fair in ordinary subjects. Will power and physique rather weak.
9	C. A. B.	Bulwick	Yorkshire School for the Blind	27 Oct., '13	11 Nov., '21	60	1/-	Doing very good work in basket making and cobbling.
10	E. S.	Charlton	Brighton Asylum for the Instruction of the Blind	13 Jan., '14	29 June, '22	60	1/-	Rapidly improving and promises to become a good scholar.
11	W. T.	Burton Latimer	Do.	17 Jan., '14	14 Mar., '20	60	2/-	Has maintained steady progress in all subjects.
12	A. H. R.	Castle Ashby	London Society for teaching and training Blind	16 Jan., '14	5 Oct., '21	65	3/-	Making satisfactory progress.
13	Kate S.	Lowick	Do.	14 Oct., '14	11 Dec., '21	65	1/-	Do.
14	Annie F.	Cogenhoe	Do.	6 Jan., '15	10 Mar., '24	65	1/-	Do.
Deaf and Dumb Children.								
15	S. W.	Silverstone	Royal Institution for Deaf and Dumb, Birmingham	23 Mar., '16	25 Mar., '25	65	2/6	} Reports not yet received.
16	Doris R.	Duston	Do.	26 April, '16	24 Sept., '20	65	1/-	
17	F. C. S.	Kilsby	Do.	23 April, '17	26 Jan., '26	65	1/6	
18	E. L. S.	Kilsby	Do.	13 Sept., '19	20 Aug., '28	65	2/6	
19	Dorothy A. B. ..	Braunston	Do.	10 Sept., '19	30 July, '27	65	3/-	
20	Florence E. H.	Rushden	Royal Institution for the Deaf and Dumb, Derby	18 Nov., '11	15 Oct., '20	68	1/-	Good report
21	Ethel M. R.....	Long Buckby	Do.	11 Jan., '12	10 Feb., '24	68	3/-	Very good report.
22	Edith R.	Raunds	Do.	29 Aug., '13	6 June, '22	68	1/-	Very good report.
23	L. H.	Great Brington	Do.	16 Mar., '15	13 Oct., '22	68	6d.	Fair report.
24	Elsie M. F.	Wellingborough	Do.	10 Sept., '17	2 Oct., '25	68	2/6	Very good report.
25	J. T.	Wellingborough	Royal Schools for the Deaf and Dumb, Manchester	16 Jan., '11		65	1/-	Left August, 1919.
26	C. J.	Harpole.....	Do.	1 May, '11	18 April, '20	65	Nil.	Satisfactory improvement all round.
27	G. H.....	Finedon	Do.	11 Jan., '13	13 Feb., '21	65	2/-	Work shows intelligence and thought. Steady worker. Made good progress. Difficulty with speech.
28	G. A. R.	Woodford, Thrapston	Do.	7 April, '13	30 Sept., '21	65	1/-	Progress fairly satisfactory.
29	L. G.	Grendon	Do.	17 Jan., '16	10 July, '24	65	2/-	Work generally shows improvement.
30	Edith M. J.	Wellingborough	Deaf and Dumb Institution, Brighton	4 Sept., '16	14 Mar., '21	63	2/-	Continues to improve; is somewhat handicapped by poor vision.



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The numbers of children similarly examined in 1918, 1917, and 1916 were 266, 252 and 193 respectively.

The children attended as follows :—

CENTRE.	NO. OF VISITS		NO. OF CHILDREN	
	BY M.O.		SEEN.	
Northampton	16	..	125	
Wellingborough	8	..	154	
Kettering	5	..	88	
Rushden	4	..	81	
Daventry	3	..	70	
Brackley	1	..	16	
Oundle	1	..	17	
Kings Cliffe	1	..	12	
Towcester	1	..	15	
	—		—	
	40		578	
	—		—	

Included in the figures 578 were 145 re-examinations.

In 73 cases it was not considered necessary to prescribe spectacles, or to change those supplied previously. Six children left school before obtaining spectacles. Of the remainder, all except 46 had paid for the necessary spectacles at the end of the year, and since then several of these have made the required payments. During the year 459 pairs of spectacles have been ordered, certain of these being in respect of children who were examined prior to 1919: the Committee granted assistance towards the provision of spectacles in 8 cases, whilst in certain instances Boards of Guardians have assisted to this end.

Extent of Medical Inspection. Mr. Holland points out that during the first two months of the year, prior to the return of the School Medical Officer, inspections were limited as in the previous year to children of 12 years of age or over, and such other children as were considered to be in need of attention: this fact accounts

for the small number of entrants examined in the Brackley Borough and Rural District, and in the Irthlingborough Urban and Middleton Cheney Rural Districts. Since the return of Dr. Mason, however, the inspections have covered children of 6 years of age and under, as well as the foregoing groups referred to.

The following table shows, on the plan of previous years, the full number of the public elementary school children who were newly examined during the year 1919, arranged in age-groups irrespective of sex, together with the corresponding figures for the year 1918, for the sake of comparison :—

									1918	1919
(i.)	No. of children newly examined between the ages									
	of 3 and 4 years, routine inspections . .									30
(ii.)	„ „ 4 „ 5 „ „ „ „									143
(iii.)	„ „ 5 „ 6 „ „ „ „									2035
(iv.)	„ „ 6 „ 7 „ „ „ „									1672
(v.)	„ „ 7 „ 8 „ „ „ „									408
(vi.)	„ „ 8 „ 9 „ „ „ „									80
(vii.)	„ „ 9 „ 10 „ „ „ „									37
(viii.)	„ „ 10 „ 11 „ „ „ „									12
(ix.)	„ „ 11 „ 12 „ „ „ „							65		130
(x.)	„ „ 12 „ 13 „ „ „ „							1792		2293
(xi.)	„ „ 13 „ 14 „ „ „ „							315		478
(xii.)	„ „ 14 „ 15 „ „ „ „							13		20
(xiii.)	No. of children at all ages, special inspections							765		579
	Totals	..	..					2950		7917

From this it will be seen that there was a practical return to the extent of medical inspection which prevailed in this County before the war, and this fact may be regarded with much satisfaction. The percentage of parents present at inspections of their children amounted to 60·2 for the year, as against 48·8 per cent. for the year 1918 and 52·7 per cent. in the year 1917.

The distribution of the scholars who were examined in respect of the several Urban and Rural Districts of the County is shown in the following table :—

PUBLIC HEALTH DISTRICTS.	Routine Inspections.				Special Inspections.		TOTALS.		
	Entrants.		Leavers.		Boys	Girls	Boys	Girls	Total
	Boys	Girls	Boys	Girls					
Brackley Borough	3	5	16	18	2	..	21	23	44
Daventry ..	24	21	31	22	9	14	64	57	121
Higham Ferrers ..	54	31	28	21	7	8	89	60	149
Desborough Urban	79	62	30	37	9	12	118	111	229
Finedon ..	39	41	27	35	9	16	75	92	167
Irthlingborough ..	7	2	49	54	11	9	67	65	132
Oundle ..	41	34	20	21	4	4	65	69	134
Raunds ..	81	53	37	40	7	13	125	106	231
Rothwell ..	58	75	16	23	6	6	80	104	184
Rushden ..	194	201	92	114	34	18	320	333	653
Wellingborough ..	188	203	181	163	36	47	405	413	818
Brackley Rural	6	9	41	46	5	5	52	60	112
Brixworth ..	156	141	77	88	10	17	243	246	489
Crick ..	43	28	13	24	5	4	61	56	117
Daventry ..	137	137	111	93	21	27	269	257	526
Easton-on-the-Hill,,	37	28	15	7	2	..	54	35	89
Gretton ..	13	13	2	3	4	..	19	16	35
Hardingstone ..	98	99	49	56	9	7	156	162	318
Kettering ..	201	206	121	112	10	10	332	328	660
Middleton Cheney ..	4	4	28	21	4	6	36	31	67
Northampton ..	97	89	46	46	13	16	156	141	297
Oundle ..	101	92	64	46	10	7	175	145	320
Oxendon ..	54	69	34	33	2	3	90	105	195
Potterspury ..	71	71	62	47	5	12	138	130	268
Thrapston ..	144	149	97	98	11	13	252	260	512
Towcester ..	166	148	80	113	19	11	265	272	537
Wellingborough ..	153	157	78	95	12	18	243	270	513
TOTALS	2249	2168	1445	1476	276	303	3970	3947	7917
	7338				579				

TABLE I.

NUMBER OF CHILDREN INSPECTED FROM 1ST JANUARY TO 31ST
DECEMBER, 1919. A. "CODE" GROUPS.

ENTRANTS.							LEAVERS.					Grand Totals.
Years	3	4	5	6	7-10	Total	11	12	13	14	Total	
Boys	20	77	1042	851	259	2249	61	1152	221	11	1445	3694
Girls	10	66	993	821	278	2168	69	1141	257	9	1476	3644
Totals	30	143	2035	1672	537	4417	130	2293	478	20	2921	7338

B. GROUPS, OTHER THAN "CODE."

I	Intermediate. 2	Special Cases. 3	Re-examined. 4	Totals. 5
Boys	276	624	900
Girls	303	618	921
Totals	579	1242	1821

The foregoing tabulations are in the form adopted from the year 1914, in accordance with the desire of the Board of Education, and show the total of 9,159 examinations, which includes the 1,242 re-examinations in the B Groups, as against the totals of 4,109 examinations in the year 1918 and 5,552 in 1917.

Heights and Weights. The Tables III. and VI. at the end of this report set out the facts as to heights and weights of the children examined during the year 1919, in respect of public elementary and secondary schools respectively. At the higher ages of the former schools, in which they are comparable with

the limited figures for the year 1918, the average weights of both boys and girls were more favourable than for the preceding year, and nearly wholly so also in respect of heights. The standards in regard to both showed considerable improvement on those for the year 1917.

Return of Defects. Table II. herewith shows the defects found in the course of medical inspection, in respect of Code Groups and Specials, as required by the Board of Education; but I append to this report, in accordance with custom, a more detailed return in Table VII. as to the physical condition of the children examined in routine inspection.

(a) CLOTHING AND CLEANLINESS. The percentages for satisfactory Clothing and Footgear were good, being 98·13 and 98·01 respectively, though below the exceptional figures of 99·67 and 99·45 for the year 1918. There was, moreover, some falling off from the good records of that year in respect of Cleanliness of the Body and Head, the percentages being 95·46 and 91·77 respectively, as against 96·56 and 92·49. The rate for uncleanness of head among the girls, as compared with girl leavers in other years, was 13·0 per cent., as against 12·4 per cent. in 1918, 16·0 per cent. in 1917, and 15·7 per cent. in 1916. It is clear that there is no room here for diminution of disciplinary vigilance on the part of teachers in the interests either of the schools or the scholars.

(b) NUTRITION. It is pleasing to note that 6,726 out of the 7,338 children examined are recorded as showing normal nutrition, while 179 are classified as having excellent nutrition. Only six instances are noted in which nutrition was distinctly bad, and 427 in which it was to be regarded as below the normal. A feature of some interest in this connection, as possibly a reflex of the work of Maternity and Child Welfare in the county, is to be seen in the fact that the rate of "normal" nutrition among the "entrants" was 93·28 per cent., as against 89·22 per cent. among the "leavers."

TABLE II.

RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL
INSPECTION IN 1919.

DEFECT OR DISEASE.		CODE GROUPS.		SPECIALS.	
		Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)		(2)	(3)	(4)	(5)
Skin	Malnutrition	4	3	..	6
	Uncleanliness—Head ..	..	7	..	10
	Body ..	..	3	..	1
	{ Ringworm—Head ..	7	1	1	1
	Body ..	..	1	..	..
	{ Scabies	5	1	..	1
	{ Impetigo	5	1	1	1
	{ Other Disease	1	..	..	..
Eye	{ Defective Vision & Squint	356	51	168	9
	{ External Eye Disease ..	18	10	4	6
Ear	{ Defective Hearing	4	3	1	1
	{ Ear Disease	17	8	6	2
Teeth	Dental Disease	158	1	25	..
Nose and Throat	{ Enlarged Tonsils	75	24	10	1
	{ Adenoids	128	18	19	2
	{ Enlarged Tonsils and Adenoids	54	1	6	..
	{ Defective Speech .. ..	..	6	..	2
Heart & Circu- lation	{ Heart Disease— Organic	9	104	..	11
	{ Functional .. ..	..	1	..	..
	{ Anæmia	42	6	7	1
Lungs	{ Pulmonary Tuberculosis :				
	{ Definite	13	30	7	19
	{ Suspected	8	25	..	8
	{ Chronic Bronchitis	3	5	..	..
Nervous System	{ Other Disease	9	82	1	24
	{ Epilepsy .. ..	..	4	..	7
	{ Chorea	2	9	1	1
	{ Other Disease .. ..	..	6	..	..
	{ Non-pulm. Tuberculosis :				
	{ Glands	8	7	2	1
	{ Bones and Joints .. ..	..	2	..	2
	{ Other Forms .. ..	..	..	..	1
	{ Rickets	2	1	..	..
	{ Deformities	22	31	7	9
	{ Other Defects or Diseases	47	23	2	24
TOTAL		997	475	268	149
Individual Children		954	474	258	149

(c) NOSE AND THROAT. In respect of the children examined, it was found that there was 85·66 per cent. of freedom from defect among the leavers, as compared with 77·33 per cent. among the entrants. There is no evidence, however, to show to what extent the improved condition among the leavers was due to natural development, operative procedure, or cultivation of breathing exercises. The total rate of mouth breathers was rather high, being 6·33 per cent., and among the leavers it was 2·26 per cent., as against 1·97 per cent. for the same class in the year 1918. The continuance of physical education in the regulation of breathing exercises, as a means for reducing the permanence of slight naso-pharyngeal defects, is imperatively called for, and it is to be hoped that, as a result of special observations, it may be possible in the future to indicate the extent of improvement resulting therefrom.

(d) EXTERNAL EYE DISEASE. Considering the number of children who were examined, there was an extraordinary absence of serious forms of external eye disease, the total rate of freedom from disease amounting to 98·46 per cent.

(e) EAR DISEASE AND HEARING. The rate also for immunity from serious disease of the ear was high, being 99·06 per cent. of the total children examined. As indicated already, there were found two cases of deaf and dumb children, who were sent for Institutional treatment.

(f) TEETH. It is regrettable that the proportion of sound teeth found among the scholars amounted to only 32·42 per cent. of the total, and that the rate for the leavers was 35·88 per cent., as against 37·39 per cent. in 1918, and 35·9 per cent. in 1917. I am glad to be able to report, therefore, that the question of the

appointment of a School Dentist was considered by the Education Committee in January, 1919, and that they gave instructions that provision should be made for such an officer in the estimates for 1919-1920. Advertisements for candidates were issued accordingly in June following, and were repeated on two subsequent occasions; but it was not until February, 1920, that a suitable candidate offered himself for the appointment. It is hoped now that a scheme for School Dentistry will be settled shortly, and the work then commenced.

(g) DEFORMITY AND DISEASE. The rate of discovered deformity was not more than usual, amounting to 1.16 per cent. of the total children examined; among the leavers it was 1.06 per cent., as against the exceptionally low rate of 0.50 per cent. in 1918 and 1.25 per cent. in 1917. The rate for anæmia among the leavers was 2.6 per cent., as against 1.97 per cent. in 1918 and 4.35 per cent. in 1917, while that for organic heart disease amounted to 2.53 per cent., as against 1.19 per cent. in 1918 and 2.68 per cent. in 1917. Lung conditions showed no exceptional variations from conditions found in previous years, with the exception of a more persistent prevalence of Chronic Bronchitis and Bronchial Catarrh, and there was no marked indication of disturbance in the Nervous System. There was, on the other hand, some evidence of rickets, which amounted to 0.54 per cent. of the total children examined, and there were 5 cases among the leavers, as against none for the year 1918.

The association of disease with physical surroundings is now well recognised, and particularly is that association of importance in the developing stages of child life. The following note, furnished me by Mr. Holland, may well find place here, therefore, as bearing on the subject:—In our larger Urban areas where boot and shoe making is the chief industry, there is an over average amount of tuberculous infection, and this shows itself during school age in the large number of children who are

kept away for long periods on medical advice on account of pretubercular conditions—debility, anæmia and threatened lung disease. In Wellingborough there is a steady average of about 70 children of this class, and it has been decided to erect an open-air school on the outskirts of the town to enable these children to obtain their education under, as far as possible, ideal health conditions. A site has been chosen, and the formal legal notice of intention to provide a school for not more than 150 children has been issued.

(h) SPEECH. Defective articulation and stammering was found in 1·31 per cent. of the total children examined, and even among the leavers the rate was higher than in the two preceding years, being 0·78 per cent., as against 0·55 per cent. in 1918 and 0·37 per cent. in 1917. But the rate is not an excessive one, and is capable of being kept under control to a great extent by the continuous practice of systematic exercises in deliberate articulation.

(i) MENTAL CONDITION. The rate for dull or backward children among the leavers was distinctly higher than usual, being 6·54 per cent., as against 2·97 per cent. in 1918 and 4·07 per cent. in 1917.

The School Medical Officers during the year certified 17 children as ineducable, by reason of mental defect, or as unlikely to receive benefit from instruction in a Special School or Class under the Elementary Education (Defective and Epileptic Children) Act, 1899, and these were notified to the County Mental Deficiency Committee. With regard to educable children, the School Medical Officers are taking steps to ascertain the number who require to be taught in Special Schools or Classes. About 150 children have been noted already who require such education, the proportion being 2 boys to 1 girl. There are expected to be about the same number of very backward children,

who are not so backward, however, as to come within the "defective" category.

(j) VISION. Vision-testing was confined during the year to the leavers, and it is certainly gratifying to find that the rate of normal vision was so high as 75·76 per cent, the rate having been 74·87 per cent. in 1918 and 70·36 per cent. in 1917. At the same time, the rate for squint was much in excess of previous years, being 2·43 per cent. among the leavers, as against 1·19 per cent. and 0·92 per cent. in the years 1918 and 1917 respectively. In his record on Vision-testing for the year, Dr. Mason reports as follows :—

Extra centres to overcome the travelling difficulties of patients are being made at Towcester, Market Harborough, Thrapston, Raunds, Kings Cliffe, Woodford Halse and Banbury, a portable gas bracket or ophthalmic candle lamp being used according to local circumstances.

428 new cases were examined at the various centres—5 of these being re-examined during the year.

145 other children were re-examined on account of vision with present glasses being considered unsatisfactory or frames being too small. Of these 108 were hypermetropic (74 being astigmatic) and 22 were myopic (15 being astigmatic), and there were 15 cases of mixed astigmatism—74% H., 14% M. In 41 cases no change of glasses was advised.

The new cases were hypermetropic in 239, both eyes similar ; myopic in 49, both eyes similar ; and mixed astigmatism occurred in 13, both eyes. Apart from these there were 117 hypermetropic eyes, 38 myopic and 29 mixed astigmatic with dissimilar defects in the two eyes (anisometropia), giving 75·7% H., 17·3% M., and 7·0% mx. The defects found were almost equally divided

between simple ametropic conditions and astigmatism—406 of the former to 380 of the latter. 242 cases were in girls and 186 in boys (56·5% and 43·5% respectively).

In 32 cases it was considered unnecessary to order glasses to be worn.

Other conditions found were :—

Asthenopia (with Emmetropia)	..	..	7
Spasm of accommodation	..	..	2
Irregular astigmatism	..	..	4
Monocular myopia	..	..	4
Choroiditis (monocular)	..	..	1
Coloboma of choroid	..	..	1
Nystagmus (with amblyopia)	..	..	3
Old wound of globe	..	..	2
Old Iritis	..	..	1
Hyalitis	..	..	1
Leucoma	..	..	1
Chronic Keratitis (with Opacity)	..	..	2

Myopia. The myopic eyes occurred as often amongst the boys as the girls, there being less than 1 per cent. difference (32·5 to 31·8 of total), but there were more cases of high degree of defect among the girls. Taking 4·0 D. as a dividing line only one boy had a higher amount affecting both eyes, and in 5 boys a single eye was above this line. In the girls 5 had both eyes of higher degree and 14 with single eye of higher defect. One new case (girl) had 14·0 D. and two re-examined cases had over 12·0 D.

Of the 22 re-examined cases 7 are no worse after an interval of about two years, in 3 cases myopia has supervened on a previous emmetropia or low hypermetropia at intervals of 6, 5 and 3 years respectively. In no case has the increase been at the rate of more than 1·0 D. per annum.

TABLE IV. TREATMENT OF DEFECTS OF CHILDREN DURING 1919.

Condition.	No. of defects found for which Treatment was considered necessary.			No. of defects for which no report is available.	Left.	No. of defects treated.	Results of Treatment.			No. of defects not treated.	Percentage of defects treated.
	From previous year.	New.	Total.				Remedied.	Improved.	Unchanged.		
Clothing .....	..	..	..	..	..	..	..	..	..	..	100-00
Footgear .....	..	1	1	..	..	1	1	..	..	..	50-00
Cleanliness of Head ..	1.	1	2	..	1	1	1	..	..	..
Cleanliness of Body ..	..	..	..	..	..	..	..	..	..	..
Nutrition	3	13	16	..	3	7	5	2	..	5	43-74
Nose and Throat.....	115	312	427	44	34	173	153	17	3	176	40-51
External Eye Disease	2	29	31	3	4	17	13	4	..	7	54-84
Ear Disease	14	24	38	3	4	23	19	4	..	8	6-52
Teeth.....	56	203	259	31	51	82	82	..	..	95	31-66
Heart and Circulation	24	58	82	12	18	34	23	11	..	18	41-46
Lungs	7	51	58	12	4	35	17	18	..	7	60-34
Nervous System .....	..	3	3	..	..	3	2	1	..	..	100-00
Skin	3	20	23	1	1	18	16	1	1	3	78-26
Rickets .....	..	2	2	..	..	2	1	1	..	..	100-00
Deformities	7	40	47	6	5	29	17	11	1	7	61-70
Tuberculosis—Non-pulmonary	1	10	11	..	1	9	6	3	..	1	81-81
Speech .....	..	..	..	..	..	..	..	..	..	..	..
Mental Condition .....	..	..	..	..	..	..	..	..	..	..	..
Vision and Squint	192	613	805	..	64	614	606	8	..	127	76-27
Hearing.....	1	8	9	2	..	4	2	2	..	3	44-44
Miscellaneous	18	51	69	2	8	44	40	4	..	15	63-76
TOTAL	444	1439	1883	117	198	1096	1004	87	5	472	58-20

Treatment of Defects. The Education Committee in May, 1919, appointed a Sub-Committee, consisting of twelve members, to deal with all matters relating to the Medical Inspection and Treatment of school children. I am informed that this sub-committee met three times subsequently during the year, and it is anticipated that the progress of necessary treatment will be greatly expedited under their guidance.

Tables IV. and V., in respect of treatment as required by the Board of Education, are submitted herewith, and it is satisfactory to note that the rate for defects treated shows improvement, being 58.2 per cent. as against 42.58 per cent. in 1918 and 50.88 per cent. in 1917. It is clear, however, that there is room for great development in this direction. In my last annual report, I referred to the fact that negotiations had been entered into by the Committee with the Northamptonshire District Nursing Association for the purpose of utilising their nurses in the following up of defects in, and for the treatment of verminous, school children. I am enabled now to state the progress that was made in this matter in the following note, as supplied to me by Mr. Holland :—

SCHOOL NURSING. The Committee during 1919 have had under consideration the extension of arrangements for the treatment of defects disclosed as the result of the Medical Inspection of Children attending the Public Elementary Schools.

In other sections of this report detailed account is given of the treatment of eye-defects, and during the year the approval of the Council was obtained to the appointment of a School Dentist, though for financial reasons it was not found possible to make an appointment in the year.

The next obvious extension of the work of treatment must be the arrangement of some system of following up and of treating minor ailments either at the homes of the children or at the School Clinics. The Committee have had before them a scheme for the provision of School Nursing through the agency of the County Nursing Association on lines similar to those adopted in some other county areas.

The Committee are in principle agreed that full advantage should be taken of the District Nursing service. Over a very large area of the County the District Nurses will be able to do all that is necessary without seriously interfering with their other duties. By employing them the waste of overlapping services will be avoided, and, on the other hand, the payments made by the Education Authority will enable the Associations to pay better salaries and thus to guarantee the permanent efficiency of the service. There remain certain districts—approximately 70 to 80 parishes—in which there are at present no District Nurses, and there are two areas—Wellingborough and Higham Ferrers with Rushden—in which the minor ailments Clinics, with the assistance which will have to be given in eye treatment and dental treatment, will monopolise the whole time of the nurses. To these two kinds of areas special consideration will have to be given.

The Committee postponed the settlement of their arrangements with the County Association while the major question of the relations between the Association and the Public Health Committee were under discussion; but now that this question has been disposed of they hope that early in the financial year 1920–21 a practicable scheme will be evolved with the co-operation of the County Nursing Association, and a system of following up established.

TABLE V.**INSPECTION, TREATMENT, &C., OF CHILDREN DURING 1919.**

(1). The total number of children medically inspected (whether Code Group, special, re-examined, or ailing child)	9159
(2). The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treat- ment)	970
(3). The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	1384
(4) The number of children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	930

Secondary School Inspections. 233 boys were examined among those attending Kettering Grammar School, and 212 girls attending Kettering and Wellingborough High Schools. (In addition, 61 boys and 52 girls were re-examined.)

Among the boys,* normal vision was present to the extent of 84·12 per cent., and among the girls to 82·54 per cent., as against 89·36, 85·72 and 75·98 per cent. respectively for the years 1918, 1917 and 1916. There was one case of Squint among the boys and 6 cases among the girls, and one case and 4 cases respectively of External Eye Disease.

As to teeth, 99 boys, or 42·48 per cent. had less than four decayed, and 55 or 23·60 per cent. had four or more decayed, as

*Owing to disorganisation of the Examining Staff, caused by the war, no boys were examined during the years 1916 to 1918.

against 93 or 43·86 per cent. and 27 or 12·73 per cent. among the girls respectively. 90 or 38·62 per cent. of the boys had dirty teeth (2 had sepsis), as against 45 or 21·22 per cent. among the girls. Uncleanliness of the head (nits only) was found in six of the girls examined.

In respect of other defects the figures for boys and girls respectively were :—Nutrition, Below Normal, 10, 3 (there were 5, 13 cases of Excellent Nutrition). Tonsils, slightly enlarged 20, 11; much enlarged 6, 2. Adenoids, slightly enlarged 1, 3. Mouth Breathers 4, 4. Ear Disease and Hearing, 3, 7. Defective Speech, 1, 1. Heart, 9, 13. Lungs, 7, 4. Deformities, 4, 6. One boy had Scabies, and one girl was Feeble Minded (high grade).

In respect of Treatment, 39 parents of boys were circularised as to 43 defects, and these were reported as “Attended to” as follows :—Defective Vision 19, Enlarged Tonsils 2, Carious or Defective Teeth 12, Ear Discharge 1, Chest conditions 2, or a total of 36 defects treated. Similarly 59 parents of girls were circularised as to 62 defects, and reports received as “Attended to” in the following cases :—Defective Vision 11, Enlarged Tonsils 1, Enlarged Glands 1, Anæmia 2, Carious or Defective Teeth 31, or a total of 46 defects treated. Three girls with carious teeth left the Schools before treatment could be carried out.

CHARLES E. PAGET,

County Medical Officer of Health.

COUNTY HALL,

NORTHAMPTON,

April 20th, 1920.

In respect of the columns "Ages" and "No. Examined," certain of the children were not examined, viz.:—

Aged	3—4,	4 for Height,	6 for Weight.
"	4—5,	18	21
"	5—6,	113	144
"	6—7,	74	102
"	7—8,	36	40
"	8—9,	13	15
"	9—10,	5	6
"	11—12,	14	17
"	12—13,	67	99
"	13—14,	19	26
"	14—15,	1	1

TABLE III.

AGES.	No. Examined.	Sum of Heights (inches).	Average Height.		Sum of Weights (lbs.).	Average Weight.	
			English (inches).	Metric (centimetres).		English (lbs.).	Metric (Kilos).
COMBINED URBAN DISTRICTS :							
BOYS.							
3— 4 years of age ..	8	231½	38½	97·8	220½	36¾	16·7
4— 5 " " " ..	30	941	39	99·1	857½	35¾	16·2
5— 6 " " " ..	376	14767	41¾	106·1	14060	40	18·1
6— 7 " " " ..	263	11037½	43¾	111·1	10720½	42¾	19·4
7— 8 " " " ..	74	3144	44¾	113·7	3219½	46	20·9
8— 9 " " " ..	9	335½	47¾	121·3	361	51½	23·3
9—10 " " " ..	7	310½	51¾	131·5	361	60	27·2
10—11 " " " ..	1	52	52	132·1	63	63	28·6
11—12 " " " ..	26	1210	55	139·7	1515½	72	32·7
12—13 " " " ..	449	24098½	55½	140·9	32607	75½	34·2
13—14 " " " ..	48	2493	56½	143·5	3393	77	34·9
14—15 " " " ..	4	175	58¼	148·0	256½	85½	38·8
GIRLS.							
3— 4 " " " ..	5	145½	36¼	92·1	128½	32	14·5
4— 5 " " " ..	28	816½	37	94·0	753	34¼	15·5
5— 6 " " " ..	355	13588½	40¾	103·5	12556	38	17·2
6— 7 " " " ..	241	10201½	43¾	111·1	9819½	42½	19·3
7— 8 " " " ..	75	3023½	47¼	120·1	2840½	45	20·4
8— 9 " " " ..	18	524½	47½	120·7	566	51½	23·3
9—10 " " " ..	5	150	50	127·0	175½	58½	26·5
10—11 " " " ..	1	49	49	124·5	54½	54½	24·7
11—12 " " " ..	29	1524	54¼	137·8	1914½	68¼	30·9
12—13 " " " ..	472	25361	56	142·3	34255½	75½	34·2
13—14 " " " ..	46	2377	58	147·3	3409	83	37·6
14—15 " " " ..	1	61½	61½	156·2	106	106	48·1
COMBINED RURAL DISTRICTS :							
BOYS.							
3— 4 years of age ..	12	457½	38	96·5	380	34½	15·6
4— 5 " " " ..	47	1723½	40	101·6	1490½	36¼	16·4
5— 6 " " " ..	666	26487	42	106·7	24070	39	17·7
6— 7 " " " ..	588	24595½	43¾	111·1	23888½	43½	19·7
7— 8 " " " ..	121	5165½	45¼	114·9	5219	46½	21·1
8— 9 " " " ..	29	1287½	47½	120·7	1319	50¾	23·0
9—10 " " " ..	15	651½	50	127·0	701½	54	24·5
10—11 " " " ..	3	148	49¼	125·1	167½	55¾	25·3
11—12 " " " ..	35	1686	54¼	137·8	2203½	68¾	31·2
12—13 " " " ..	703	38586½	55¾	141·6	50426	74	33·6
13—14 " " " ..	173	9784½	57½	146·1	13784	82	37·2
14—15 " " " ..	7	405	57¾	146·7	575½	82¼	37·3
GIRLS.							
3— 4 " " " ..	5	148	37	94·0	104	34½	15·6
4— 5 " " " ..	38	1449½	40¼	102·2	1265	36	16·3
5— 6 " " " ..	638	25297	41¾	106·1	23368	39¼	17·8
6— 7 " " " ..	580	24546	44½	113·0	23405½	43¼	19·6
7— 8 " " " ..	138	5594½	45	114·3	5615½	45½	20·6
8— 9 " " " ..	24	1032	46¾	118·7	1021½	48½	22·0
9—10 " " " ..	10	501½	50	127·0	539	53¾	24·4
10—11 " " " ..	7	367	52¼	132·7	436	62¼	28·2
11—12 " " " ..	40	1876½	53½	135·9	2081	65	29·5
12—13 " " " ..	669	36564½	56½	143·5	47649	75½	34·2
13—14 " " " ..	211	11822½	58	147·3	16418	82½	37·4
14—15 " " " ..	8	478	59¾	151·7	742½	92¾	42·0
	7338						

TABLE VI.

SECONDARY SCHOOLS.

In respect of the columns "Ages" and "No. Examined," certain of the children were not examined, viz.:—

Aged	8—9,	3 for Height,	3 for Weight.
"	11—12,	2	2
"	12—13,	1	
"	13—14,	2	2
"	15—16,	1	1

AGES.	No. Examined.	Sum of Heights (inches).	Average Height.		Sum of Weights (lbs.).	Average Weight.	
			English (inches).	Metric (centimetres).		English (lbs.).	Metric (Kilos).
BOYS.							
6— 7 years of age ..							
7— 8 " " " ..							
8— 9 " " " ..	5	261 $\frac{1}{2}$	52 $\frac{1}{4}$	132·7	314	62 $\frac{3}{4}$	28·4
9—10 " " " ..	8	425	53	134·6	543 $\frac{1}{2}$	67 $\frac{3}{4}$	30·7
10—11 " " " ..	11	582	52 $\frac{3}{4}$	134·0	719	65 $\frac{1}{4}$	29·6
11—12 " " " ..	29	1585	54 $\frac{1}{2}$	138·4	2052	70 $\frac{3}{4}$	32·1
12—13 " " " ..	62	3502	57 $\frac{1}{4}$	145·4	4699 $\frac{1}{2}$	75 $\frac{3}{4}$	34·3
13—14 " " " ..	43	2517 $\frac{1}{2}$	58 $\frac{1}{2}$	148·6	3661	85	38·5
14—15 " " " ..	45	2725 $\frac{1}{2}$	60 $\frac{1}{2}$	153·7	4160	92 $\frac{1}{4}$	41·8
15—16 " " " ..	16	988 $\frac{1}{2}$	65 $\frac{3}{4}$	167·0	1657 $\frac{1}{2}$	110 $\frac{1}{2}$	50·1
16—17 " " " ..	11	727	66	167·6	1321	120	54·4
17—18 " " " ..	2	131	65 $\frac{1}{2}$	166·4	217	108 $\frac{1}{2}$	49·2
18—19 " " " ..	1	70	70	177·8	135	135	61·2
GIRLS.							
6— 7 years of age ..	7	324	46 $\frac{1}{4}$	117·5	347 $\frac{1}{2}$	49 $\frac{1}{2}$	22·4
7— 8 " " " ..	5	241	48 $\frac{1}{4}$	122·5	246 $\frac{1}{2}$	49 $\frac{1}{4}$	22·3
8— 9 " " " ..	11	393	49	124·5	419	52 $\frac{1}{4}$	23·7
9—10 " " " ..	10	521	52	132·1	616	61 $\frac{1}{2}$	27·9
10—11 " " " ..	16	844 $\frac{1}{2}$	52 $\frac{3}{4}$	134·0	1070 $\frac{1}{2}$	66 $\frac{3}{4}$	30·3
11—12 " " " ..	49	2590	55	139·7	3280	69 $\frac{3}{4}$	31·6
12—13 " " " ..	43	2433 $\frac{1}{2}$	56 $\frac{1}{2}$	143·5	3327 $\frac{1}{2}$	77 $\frac{1}{4}$	35·0
13—14 " " " ..	40	2257 $\frac{1}{2}$	59 $\frac{1}{4}$	150·5	3438	90 $\frac{1}{2}$	41·0
14—15 " " " ..	20	1328	66 $\frac{1}{4}$	168·3	2213 $\frac{1}{2}$	110 $\frac{1}{2}$	50·1
15—16 " " " ..	7	431 $\frac{1}{2}$	61 $\frac{1}{2}$	156·2	729	104	47·2
16—17 " " " ..	2	127	63 $\frac{1}{2}$	161·3	229	114 $\frac{1}{2}$	51·9
17—18 " " " ..	2	126 $\frac{1}{2}$	63 $\frac{1}{4}$	160·6	287	143 $\frac{1}{2}$	65·1
	445						

